**NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Statistics: Activity 1.2 alternate**

**Directions: Complete the activity below. You will need a tape measure and the materials around the room.**

1. Get a tape measure.
2. Around the room, there are object that are circular. We will be using them to investigate the actual value of the number PI (π).
3. Using your tape measure, go around the room and measure the diameter and circumference of numerous objects (in centimeters). Record your data below. Complete **ONLY** the first 3 columns of the entire chart. Do not calculate Pi yet.

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| --- | --- | --- | --- |
| **Object name** | **Circumference** | **Diameter** | **PI** |
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1. Now that you are finished measuring, return to your seat and compute pi for each of your objects, rounding to 3 decimal places. (refresher: pi = circumference ÷diameter)
2. Comment on your calculations of Pi as compared to the real value (3.1415926). Were yours close to the actual value? Far? Why do you think this was so?
3. What difficulties did you have when taking your measurements?
4. What was your instrument?
5. What variables did you measure?
6. What units did you use?
7. Calculate your average value of pi: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. Record your average value of Pi on the board with your classmates. Create a dotplot of the class measurements below:
9. Write a few sentences describing the class dotplot, and comparing it to the correct value for Pi.
10. Calculate the class average value for Pi: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. Is this closer than your average value for Pi? Why do you think this is so?
11. Look back at the class dotplot. Are the class’ errors mostly in one direction (above or below the actual value)? What about your own measurements and errors?